Claim 19 (New):

A method for treating or controlling neurogenetic disorders in an individual comprising the administration of a therapeutically effective amount of a composition comprising an anti-convulsant agent and a pharmaceutically acceptable carrier;

wherein said neurogenetic disorders are selected from the group consisting of hereditary ataxias and related disorders, Friedreich ataxia, ataxia telangiectasia, olivopontine cerebellar degeneration, Ramsay Hunt syndrome, abetalipoproteinemia, Machado-Joseph disease, familial spastic paraparesis, movement disorders, juvenile Huntington disease, dystonias, blepharospasm, spasmodic torticolis, tremor, myoclonus, Hallervorden-Spatz disease, phakomatoses, neurocutaneous syndromes, neurofibromatosis, tuberous sclerosis, Sturge-Weber, Von Hippel-Landau disease, mitochondrial encephalomyopathies, MELAS syndrome, Kearns-Sayre, Leigh disease, hereditary disorders of nerve and muscle, infantile spinal muscular atrophy, Charcot-Marie-Tooth disease, hereditary sensory and autonomic neuropathies, genetic myasthenic syndromes, metabolic myopathies, muscular dystrophies, myotonias, Laurence-Moon-Bardet-Biedl syndrome, Aicardi, Sjogren-Larsson syndrome, Prader-Willi syndrome, Angelman syndrome, gouging, oppositional behavior, and obsessive ruminations.

Claim 20 (New):

The method according to claim 19, wherein said neurogentic disorder is oppositional behavior.

Claim 21 (New):

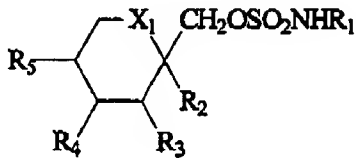
The method according to claim 19, wherein said neurogenetic disorder is Prader-Willi syndrome.

Claim 22 (New):

The method according to claim 19, wherein said neurogenetic disorder is obsessive ruminations.

Claim 23 (New):

The method according to claim 19, wherein said anti-convulsant agent is selected from the group consisting of:



(Formula I)

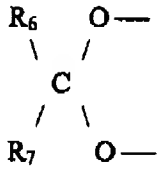
wherein

X_1 is CH_2 or oxygen;

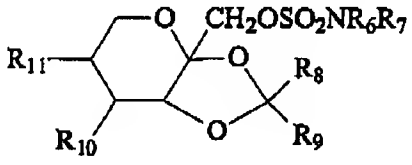
A' cont

R_1 is hydrogen or alkyl; and

R_2, R_3, R_4, and R_5 are independently hydrogen or lower alkyl and, R_2 and R_3 and/or R_4 and R_5 together may be a methylenedioxy group of the following formula:



wherein R_6 and R_7 are the same or different and are hydrogen, lower alkyl or are alkyl and are joined to form a cyclopentyl or cyclohexyl ring,



(Formula II)

wherein R_6 and R_7 may be the same or different and are hydrogen or C_1 to C_4 alkyl;

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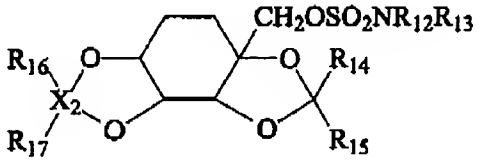
wherein R_8 and R_9 may be the same or different and are hydrogen or C_1 to C_4 alkyl;

wherein R_{10} and R_{11} may be the same or different and are azido, halogen, hydroxyl, sulfamoyl (H_2NSO_2O), C_1 to C_4 alkoxy, C_1 to C_4 alkyl thiocarbonate (RSC(O)O), C_1 to C_4 alkyl carbonate (ROC(O)O), or C_1 to C_4 alkyl carboxylate (RC(O)O), wherein R is C_1 to C_4 alkyl,

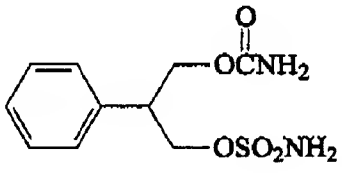


(Formula III)

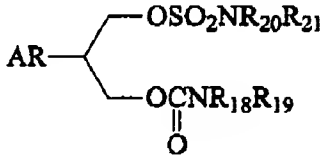
wherein R_{12} and R_{13} may be the same or different and are hydrogen, alkyl (C_1 to C_6), cycloalkyl (C_3-C_7), allyl, or benzyl;

R_{14} and R_{15} are the same or different and selected from hydrogen or lower alkyl; and

X_2 may be chosen from carbon (C) or sulfur (S), with the stipulation that when X_2 is carbon, R_{16} and R_{17} are the same or different and are selected from hydrogen or lower alkyl, whereas when X_2 is sulfur one of R_{16} and R_{17} is oxygen and the other is a lone pair of electrons or both R_{16} and R_{17} are oxygen,

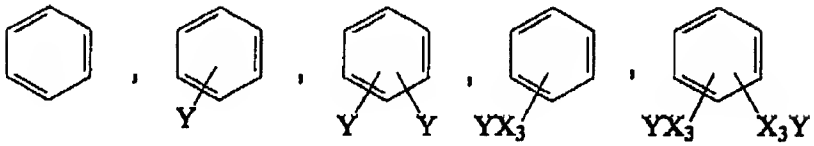


(Formula IV), and



(Formula V)

wherein, AR is represented by the following formulas;



Y is selected from the group consisting of halogens, trifluoromethyl and alkyl groups containing 1 to 3 carbon atoms when Y alone is attached to the benzene ring; or

when X_3, which may be S or O, is present, Y is selected from the group consisting of trifluoromethyl and alkyl groups containing 1 to 3 carbon atoms; and

C1 cont

R_{18}, R_{19}, R_{20}, and R_{21}, may be identical or different and are selected from the group consisting of hydrogen, linear or branched alkyl groups containing 1 to 16 carbon atoms, cyclic alkyl groups containing 3 to 16 carbon atoms and aryl groups containing 6 to 8 carbon atoms, and $NR_{18}R_{19}$ and $NR_{20}R_{21}$, which may be identical or different, each may form a 3 to 7-membered aliphatic cyclic compound together with another nitrogen atom or oxygen atom.

Claim 24 (New):

The method according to claim 19, wherein the therapeutically effective amount is about 0.1 to 400 mg.

Claim 25 (New):

The method according to claim 19, wherein the therapeutically effective amount is about 10 to 200 mg.

Claim 26 (New):

The method according to claim 19, wherein the therapeutically effective amount is about 25 mg.

Claim 27 (New):

The method according to claim 23, wherein the therapeutically effective amount is about 0.1 to 400 mg.

Claim 28 (New):

The method according to claim 23, wherein the therapeutically effective amount is about 10 to 200 mg.

Claim 29 (New):

The method according to claim 23, wherein the therapeutically effective amount is about 25 mg.